Release in Full

PRODUCTION DEPT.
FILE COPY

EAST POPLAR UNIT WELL NO. 99

ROOSEVELT COUNTY, MONTANA

MURPHY CORPORATION - OPERATOR

WELL HISTORY

EAST POPLAR UNIT WELL NO. 99

EAST POPLAR UNIT WELL NO. 99

ROOSEVELT COUNTY, MONTANA

MURPHY CORPORATION - OPERATOR

SUMMARY OF WELL HISTORY

WELL NAME AND NUMBER:	East Poplar Unit Well No. 99
LOCATION:	C SW NE Section 1, T28N, R51E
DRILLING UNIT:	160 acres
WORKING INTEREST:	31.448470 %
REVENUE INTEREST:	31.448470 %
ELEVATION:	2172' Ground - 2184' K.B.
WELL HEAD MARKER:	RKB to Top of flange on 9-5/8" x 5-1/2" Cameron Casing Head - 10'
DRILLING CONTRACTOR:	Zach Brooks Drilling Company
SPUDDED:	7:00 P.M., July 23, 1957
DRILLING RIG RELEASED:	8:30 P.M., August 11, 1957
COMPLETION CONTRACTOR:	Western Oil Well Service Company
COMPLETED:	Temporarily Abandoned October 1, 1957
TOTAL DEPTH:	5803' Driller - 5811' Schlumberger
PBTD:	5596'
CASING:	9-5/8" at 1121.06' with 400 sacks cement 5-1/2" at 5910' with 300 sacks cement
INITIAL PRODUCTION INTERVAL:	None
TUBING:	None
INITIAL POTENTIAL:	None
INITIAL ACID TREATMENT:	"B " Zone - 5772'-5776' with 500 gallons etching acid. "B " Zone - 5772'-5776' with 500 gallons etching acid. "B " Zone - 5751'-5756' with 500 gallons etching acid. "B " Zone - 5735'-5740' with 1000 gallons etching acid. "B " Zone - 5735' - 5740' with 3000 gallons etching acid. "A " Zone - 5626'-5630' with 500 gallons etching acid. "A " Zone - 5601'-5617' with 500 gallons etching acid. "A " Zone - 5578'-5583' with 500 gallons etching acid.

Summary of Well History Continued

PERFORATIONS:

"B " Zone - 5772'-5776', 4 holes per foot with Lane Wells
"B " Zone - 5772'-5776', 4 jets per foot (17 holes) with Wireline, Inc.
"B " Zone - 5751'-5756', 4 jets per foot with Wireline, Inc.
"B " Zone - 5735'-5740', 4 jets per foot with Lane Wells.
"A " Zone - 5626'-5630', 4 jets per foot with Wireline, Inc.
"A " Zone - 5601'-5617', 4 jets per foot with Wireline, Inc.
"A " Zone - 5578'-5583', 4 jets per foot with Wireline, Inc.

Poplar

A.F.E. No. 8-4006

AUTHORITY FOR EXPENDITURE
MURPHY CORPORATION - EAST POPLAR UNIT NO. 99
SW NE Section 1-T28N-R51E, Roosevelt County, Montana

WELL DRILLING & CONSTRUCTION EXPENSE:	TO CSG. PT.	COMP. & EQUIP.	TOTAL COST
Drilling - Footage - 5950' @ $5.25/Ft.	$ 31,250		$ 31,250
Daywork - 4 days @ $850/day	3,400		3,400
2 days @ $775/day		$ 1,550	1,550
Loc. survey, permit & prep.	500		500
Roads, fences, cattleguard, etc.	800		800
Mud mat. & chem., incl. oil & gas	3,500		3,500
Drilling bits, baskets, etc.		250	250
Cementing casing	1,550	1,150	2,700
Coring materials & services	400		400
Testing services, incl. swabbing	1,200		1,200
Other logs, surveys, & analysis	1,600	800	2,400
Perforating services		600	600
Hydrafrac, acidize, etc., incl. oil		1,400	1,400
Float equip., centralizers, etc.	300	600	900
Trucking, welding, & other labor	250	500	750
Supervision & miscellaneous	250	500	750
Total Est. Well Drlg. & Const. Exp.	$ 45,000	$ 7,350	$ 52,350
WELL EQUIPMENT COSTS:			
Casing: 1000' of 9-5/8" O.D.	$ 4,000		$ 4,000
Casing: 5950' of 5-1/2" O.D.		$ 10,950	10,950
Tubing: 5950' of 2-7/8" O.D.		5,300	5,300
Casing head & connections	300		300
Xmas tree & connections		800	800
Total Est. Well Equip. Costs	$ 4,300	$ 17,050	$ 21,350
Total Est. Cost of Well	$ 49,300	$ 24,400	$ 73,700
LEASE EQUIPMENT:			
Flow lines		$ 3,000	$ 3,000
Other line pipe, valves, & fittings		500	500
Trucking, welding, & other labor		500	500
Total Est. Cost of Lease Equip.		$ 4,000	$ 4,000
TOTAL EST. COST OF WELL & LEASE EQUIP.	$ 49,300	$ 28,400	$ 77,700

APPORTIONMENT OF TOTAL ESTIMATED COSTS

Murphy Corporation	31.448470%	$ 15,504	$ 8,931	$ 24,435
Munoco Company	2.096565%	1,034	595	1,629
Placid Oil Company	33.545035%	16,538	9,527	26,064
The Carter Oil Company	16.335860%	8,054	4,639	12,693
Phillips Petroleum Company	16.335860%	8,054	4,639	12,693
C. F. Lundgren	.238210%	117	68	185

APPROVAL OF EXPENDITURE

Requested by:

Harold D. McBee JUN 10 1957
Division Production Supt. Date

Recommend Approval:

Gordon Kirby JUN 12 1957
Division Manager Date

Recommend Approval:

Staff Production Man Date

Recommend Approval:

Budget Supervisor Date

Approved:

Vice President-Operations Date

HM:eh
6-7-57

File #99

A.F.E. No. 8-5011 Poplar

AUTHORITY FOR EXPENDITURE
MURPHY CORPORATION - EAST POPLAR UNIT NO. 99
SW NE Section 1, T28N, R51E, Roosevelt County, Montana
(Installation of Pumping Unit)

Pumping unit complete with engine	$5,650
Labor and materials setting unit (complete)	950
Trucking, small fittings, dirt work, and incidentals	300
Rods, pump and well head equipment	3,000
Total Estimated Cost	$9,900

This well is in a low pressure area and will require pumping as soon as it is completed.

APPORTIONMENT OF TOTAL ESTIMATED COST

Murphy Corporation	31.448470 %	$3,113
Monoco Company	2.096565 %	208
Placid Oil Company	33.545035 %	3,321
Carter Oil Company	16.335860 %	1,617
Phillips Petroleum Company	16.335860 %	1,617
C. F. Lundgren	.238210 %	24

APPROVAL OF EXPENDITURE

Requested by: [signature] 6-18-57
Date

[signature] JUN 2 0 1957
Division Production Supt. Date

Recommend Approval:

[signature] JUN 2 0 1957
Division Manager Date

Recommend Approval:

Staff Production Man Date

Recommend Approval:

Budget Supervisor Date

Approved:

Vice President-Operations Date

MTJ:br
6-18-57

AUTHORITY FOR ABANDONMENT
MURPHY CORPORATION - EAST POPLAR UNIT NO. 99
ROOSEVELT COUNTY, MONTANA

Authority is requested to plug and abandon the above named well located as described below:

1980' FNL and 1986' FEL of Section 1, T28N, R51E.

JUSTIFICATION: 5½" production casing was set at 5910' with 300 sacks 1.1 Pozmix and calculated the top of cement should be at 4414'.

After unsuccessful attempts to complete in the "B-3", "B-2", "B-1" "A-4", "A-3" and "A-1" Zones, the well was temporarily abandoned as a dry hole on October 1, 1957.

PLUGGING PROGRAM: Hole to be loaded with 10-10.2# mud. All perforations were squeezed except 5578'-83' ("A-1" Zone), these to be plugged with a 25 sack (122' fill up) plug. Top and bottom of 9-5/8" to be plugged.

ESTIMATES: Cost of loading hole with 10-10.2# mud, plugging and pulling casing:

Pulling Unit (12 hrs. @ $28 per hour)	$ 350
Mud material and cement	525
Cementing truck to mix mud and set plug	400
Welding, trucking and labor	150
Pulling casing (4300' @ 35¢ per foot)	1,500
Total	$2,925

Salvage -	4300' of 5½" casing (50% of new price)	$4,725
	Casing head and miscellaneous equipment (50% of new price)	800
	Total	$5,525

WORKING INTEREST OWNERS:

		Cost	Salvage
Murphy Corporation	31.448470%	$ 920	$ 1,738
Munoco Company	2.096565%	61	116
Placid Oil Company	33.545035%	981	1,853
Carter Oil Company	16.335860%	478	903
Phillips Petroleum Co.	16.335860%	478	902
C. F. Lundgren	.238210%	7	13

APPROVAL OF ABANDONMENT

Requested by: W H Barnes — 2-26-60
Field Production Supt. — Date

RECOMMEND APPROVAL:

Division Production Superintendent — Date — Div. Land — Div. Geol. — Div. Engr.

Division Manager — Date

Staff Geologist — Land Manager — Engineer — Staff Production

Vice President - Operations — Date

J:m
6-60

EPU #99

AUTHORITY FOR ABANDONMENT
MURPHY CORPORATION - EAST POPLAR UNIT NO. 99
Roosevelt County, Montana

Authority is requested to plug and abandon the above named well located as described below:

1980' FNL and 1980' FEL of Section 1, T28N, R51E

JUSTIFICATION: This well was temporarily abandoned on October 1, 1957 after completion attempts proved unsuccessful. Attempted completions were tried in the following zones: B-3 5772-5776 sqz, B-2 5751-5756 sqz, B-1 5735-5740 sqz, A-4 5626-5630 sqz, A-3 5601-5617 sqz, A-1 5578-5583. (Engineering Workover Committee recommended that this well be plugged and casing pulled.)

PLUGGING PROGRAM: Hole to be loaded with 10# to 10.2# mud or heavy salt water. Perforations 5578-5583 to be plugged with a 25 sack plug. Will attempt to cut off and pull as much of available 5½" casing as possible, setting a 25 sack plug at the bottom of the 9 5/8" surface casing and a 10 sack plug at the top of the 9 5/8" surface casing with a 3" steel post marker cemented in and capped in accordance with the regulations prescribed by the United States Geological Survey and the Montana State Oil & Gas Conservation Commission.

ESTIMATES

COST -	Pulling Unit	$ 300
	Mud Material & Cement	525
	Cement Truck to Mix Mud & Set Plug	400
	Welding, Trucking & Labor	150
	Pulling Casing @ $0.35 per foot (4,000')	1,400
	Total Estimated Cost -	$2,775
SALVAGE -	4,000' of 5½" Casing @ 50% of New Price	$4,400
	Well Head & Miscellaneous Equipment	800
	Total Estimated Salvage -	$5,200

4620' - 3" steel flowline will be abandoned as uneconomical to take up.

APPORTIONMENT OF TOTAL ESTIMATED COST AND SALVAGE

		COST	SALVAGE
Murphy Corporation	31.448470%	$ 873	$1,635
Monoco Company	2.096565%	$ 58	$ 109
Placid Oil Company	33.545035%	$ 931	$1,744
Humble Oil & Refining Company	16.335860%	$ 453	$ 850
Phillips Petroleum Company	16.335860%	$ 453	$ 850
C. F. Lundgren	.238210%	$ 7	$ 12

APPROVAL OF ABANDONMENT

Requested by: M. T. Jones — 3-20-62
Field Production Superintendent — Date

RECOMMEND APPROVAL:

Division Production Supt. — Date

APPROVED:

Division Manager — Date

MTJ:am
3-20-62

783

Form No. 2

GENERAL RULES
201, 202, 213,
216, 219, 233.1

(SUBMIT IN QUADRUPLICATE)

TO

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA
BILLINGS OR SHELBY

NOTICE!
THIS FORM BECOMES A PERMIT WHEN STAMPED APPROVED BY AN AGENT OF THE COMMISSION.

RECEIVED
JUN 27 1957
OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF MONTANA

SUNDRY NOTICES AND REPORT OF WELLS

Notice of Intention to Drill	XXX	Subsequent Report of Water Shut-off	
Notice of Intention to Change Plans		Subsequent Report of Shooting, Acidizing, Cementing	
Notice of Intention to Test Water Shut-off		Subsequent Report of Altering Casing	
Notice of Intention to Redrill or Repair Well		Subsequent Report of Redrilling or Repair	
Notice of Intention to Shoot, Acidize, or Cement		Subsequent Report of Abandonment	
Notice of Intention to Pull or Alter Casing		Supplementary Well History	
Notice of Intention to Abandon Well		Report of Fracturing	

(Indicate Above by Check Mark Nature of Report, Notice, or Other Data)

June 20, 19 57

Following is a {notice of intention to do work / report of work done} on land {leased} described as follows:

LEASE Allotted 1-37-Ind-12862 (lse 3597)

MONTANA (State) Roosevelt (County) East Poplar Unit (Field)

Well No. 99 C SW NE Section 1 (m. sec.) 28N (Township) 51E (Range) M.P.M. (Meridian)

The well is located 1980 ft. from {N} North line and 1986 ft. from {E} East line of Sec. 1

(Locate accurately on Plat on back of this form the well location, and show lease boundary.)

The elevation of the derrick floor above the sea level is not yet determined.

READ CAREFULLY — DETAILS OF PLAN OF WORK — READ CAREFULLY

(State names of and expected depths to objective sands; show size, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work, particularly all details results Shooting, Acidizing, Fracturing.)

DETAILS OF WORK
RESULT

Approximately 1000' of 9-5/8" surface pipe will be set with 450 sacks of cement. Total depth is expected to be 5950' so as to evaluate the producing section of the Madison formation. 5-1/2" casing will be set for production string. Adequate blow out preventers will be installed.

ATTACHED DRAFT FOR $75.00 FOR DRILLING PERMIT FEE.

AMOUNT RECEIVED $75.00
DRILLING PERMIT NO. 5-1026
RECEIPT NO. 909

Approved subject to conditions on reverse of form 6-21-57

Date 6-24-57

By John R Rite
Title
District Office Agent

Company Murphy Corporation

By Harold Milam

Title Division Production Superintendent

Address 602 Midland Bank Bldg, Billing, Mont.

RECEIVED
JUN 24 1957
OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA - BILLINGS

NOTE:—Reports on this Form to be submitted to the District Agent for Approval in Quadruplicate.

10M--1-58

OVER

783

Form No. 2
GENERAL RULES
201, 202, 213,
216, 219, 233.1

(SUBMIT IN QUADRUPLICATE)
TO
OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA
BILLINGS OR SHELBY

NOTICE! THIS FORM BECOMES A PERMIT WHEN STAMPED APPROVED BY AN AGENT OF THE COMMISSION.

AUG 2 - 1957
OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF MONTANA

SUNDRY NOTICES AND REPORT OF WELLS

Notice of Intention to Drill		Subsequent Report of Water Shut-off	
Notice of Intention to Change Plans		Subsequent Report of Shooting, Acidizing, Cementing	
Notice of Intention to Test Water Shut-off		Subsequent Report of Altering Casing	
Notice of Intention to Redrill or Repair Well		Subsequent Report of Redrilling or Repair	
Notice of Intention to Shoot, Acidize, or Cement		Subsequent Report of Abandonment	
Notice of Intention to Pull or Alter Casing		Supplementary Well History	XX
Notice of Intention to Abandon Well		Report of Fracturing	

(Indicate Above by Check Mark Nature of Report, Notice, or Other Data)

July 26, 1957

Following is a ~~notice of intention to do work~~ report of work done on land ~~owned~~ leased described as follows:

LEASE Allotted 1-37-Ind-12862 (lse 3597)

MONTANA (State) Roosevelt (County) East Poplar Unit (Field)

Well No. 99 SW NE Section 1 (m. sec.) 28N (Township) 51E (Range) M.P.M. (Meridian)

The well is located 1980 ft. from {N / ~~S~~} line and 1986 ft. from {E / ~~W~~} East line of Sec. 1

(Locate accurately on Plat on back of this form the well location, and show lease boundary.)

The elevation of the derrick floor above the sea level is 2184 ft.

READ CAREFULLY — DETAILS OF PLAN OF WORK — READ CAREFULLY

(State names of and expected depths to objective sands; show size, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work, particularly all details results Shooting, Acidizing, Fracturing.)

DETAILS OF WORK
RESULT

Spudded: 7:00 P.M., 7-23-57

Ran 35 jts., 1109.56 ft. of 9 5/8", 32.30 lb., H-40, R-2, ST&C, 8rd. thd., Class "1" American casing. Landed 11.50 ft. below RKB and set at 1121.06 ft. Ran Howco float shoe at 1121 ft., 1 Howco centralizer at 1106 ft. Circulated and worked pipe 30 minutes. Cemented with 400 sacks of regular cement with 2% $CaCl_2$. Ran 10 barrels of water ahead. Left approximately 20 ft. of cement on top of plug. Circulated approximately 20 sacks of clean cement to surface. Bumped plug at 12 P.M. - Midnight, with 1000 lb., released pressure float, held ok.

Tested casing and BOP with 1200 lb. for 30 minutes, held ok.

Approved subject to conditions on reverse of form — U.S.G.S. approved 7-30-57

Date 7-31-57

By [signature]
Title
District Office Agent

RECEIVED
JUL 29 1957
OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF MONTANA - BILLINGS

Company Murphy Corporation
By [signature] M. T. James
Title Field Production Superintendent
Address Poplar, Montana

NOTE:—Reports on this Form to be submitted to the District Agent for Approval in Quadruplicate.

10M--1-56

OVER

Form No. 2
GENERAL RULES
201, 202, 213,
216, 219, 233.1

(SUBMIT IN QUADRUPLICATE)
TO
OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA
BILLINGS OR SHELBY

NOTICE!
THIS FORM BECOMES A PERMIT WHEN STAMPED APPROVED BY AN AGENT OF THE COMMISSION.

RECEIVED
MAR 14 1960
OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA

SUNDRY NOTICES AND REPORT OF WELLS

Notice of Intention to Drill		Subsequent Report of Water Shut-off	
Notice of Intention to Change Plans		Subsequent Report of Shooting, Acidizing, Cementing	
Notice of Intention to Test Water Shut-off		Subsequent Report of Altering Casing	
Notice of Intention to Redrill or Repair Well		Subsequent Report of Redrilling or Repair	
Notice of Intention to Shoot, Acidize, or Cement		Subsequent Report of Abandonment	
Notice of Intention to Pull or Alter Casing		Supplementary Well History	
Notice of Intention to Abandon Well	XX	Report of Fracturing	

(Indicate Above by Check Mark Nature of Report, Notice, or Other Data)

March 2, 19 60

Following is a {notice of intention to do work} on land {leased} described as follows:

LEASE Allotted-1-37-Ind-12862 (Lse 3597)

MONTANA (State) Roosevelt (County) East Poplar (Field)

Well No. 99 SW NE Section 1 (m. sec.) 28N (Township) 51E (Range) M.P.M. (Meridian)

The well is located 1980 ft. from {N/S} line and 1980 ft. from {E/W} line of Sec. 1

(Locate accurately on Plat on back of this form the well location, and show lease boundary.)

The elevation of the derrick floor above the sea level is 2184 ft.

READ CAREFULLY — **DETAILS OF PLAN OF WORK** — READ CAREFULLY

(State names of and expected depths to objective sands; show size, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work, particularly all details results Shooting, Acidizing, Fracturing.)

DETAILS OF WORK
RESULT

See attached sheet.

RECEIVED
MAR 11 1960
OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA - BILLINGS

Approved subject to conditions on reverse of form G.S.G. Approved 3-7-60

Date 3-11-60

By [signature]
Title
District Office Agent

Company MURPHY CORPORATION

By [signature]

Title Field Production Superintendent

Address Poplar, Montana

NOTE:—Reports on this Form to be submitted to the District Agent for Approval in Quadruplicate.

WHEN USED AS PERMIT TO DRILL, THIS EXPIRES 90 DAYS FROM DATE OF APPROVAL

OVER

Form No. 2

GENERAL RULES
201, 202, 213,
216, 219, 233.1

(SUBMIT IN QUADRUPLICATE)

TO

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA
BILLINGS OR SHELBY

NOTICE!
THIS FORM BECOMES A PERMIT WHEN STAMPED APPROVED BY AN AGENT OF THE COMMISSION.

RECEIVED
APR 25 1962
OIL AND GAS CONSERVATION COMMISSION
THE STATE OF MONTANA

SUNDRY NOTICES AND REPORT OF WELLS

Notice of Intention to Drill		Subsequent Report of Water Shut-off	
Notice of Intention to Change Plans		Subsequent Report of Shooting, Acidizing, Cementing	
Notice of Intention to Test Water Shut-off		Subsequent Report of Altering Casing	
Notice of Intention to Redrill or Repair Well		Subsequent Report of Redrilling or Repair	
Notice of Intention to Shoot, Acidize, or Cement		Subsequent Report of Abandonment	
Notice of Intention to Pull or Alter Casing		Supplementary Well History	
Notice of Intention to Abandon Well & Plug	XX	Report of Fracturing	

(Indicate Above by Check Mark Nature of Report, Notice, or Other Data)

April 18, 1962

Following is a { notice of intention to do work / ~~report of work done~~ } on land { ~~owned~~ / leased } described as follows:

LEASE 1-37-Ind-12862

MONTANA (State) Roosevelt (County) East Poplar (Field)

Well No. 99 C SW NE Section 1 (m. sec.) 28N (Township) 51E (Range) (Meridian)

The well is located 1980 ft. from { N / ~~S~~ } line and 1986 ft. from { E / ~~W~~ } line of Sec. 1

(Locate accurately on Plat on back of this form the well location, and show lease boundary.)

The elevation of the derrick floor above the sea level is 2184' K.B.

RECEIVED
APR 25 1962
OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA - BILLINGS

READ CAREFULLY — DETAILS OF PLAN OF WORK — READ CAREFULLY

(State names of and expected depths to objective sands; show size, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work, particularly all details results Shooting, Acidizing, Fracturing.)

DETAILS OF WORK
RESULT

Hole to be loaded with 10# to 10.2# mud or heavy salt water. Perforations 5578-5583 to be plugged with a 25 sack plug. Will attempt to cut off and pull as much of available 5½" casing as possible, setting a 25 sack plug at the bottom of the 9 5/8" surface casing and a 10 sack plug at the top of the 9 5/8" surface casing with a 3" steel post marker cemented in and capped in accordance with the regulations prescribed by the United States Geological Survey and the Montana State Oil & Gas Conservation Commission.

USGS approved 4-25-62

Approved subject to conditions on reverse of form

Date 4-24-62

By [signature] Title District Office Agent

Company Murphy Corporation

By M. L. Jones

Title Field Production Supt.

Address Poplar, Montana

NOTE:—Reports on this Form to be submitted to the District Agent for Approval in Quadruplicate.

WHEN USED AS PERMIT TO DRILL, THIS EXPIRES 90 DAYS FROM DATE OF APPROVAL

OVER

No. 2

ERAL RULES
202, 213,
219, 233.1

(SUBMIT IN QUADRUPLICATE)

TO

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA
BILLINGS OR SHELBY

NOTICE!
THIS FORM BECOMES A PERMIT WHEN STAMPED APPROVED BY AN AGENT OF THE COMMISSION.

RECEIVED
SEP 11 1962
OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF MONTANA

SUNDRY NOTICES AND REPORT OF WELLS

Notice of Intention to Drill		Subsequent Report of Water Shut-off	
Notice of Intention to Change Plans		Subsequent Report of Shooting, Acidizing, Cementing	
Notice of Intention to Test Water Shut-off		Subsequent Report of Altering Casing	
Notice of Intention to Redrill or Repair Well		Subsequent Report of Redrilling or Repair	
Notice of Intention to Shoot, Acidize, or Cement		Subsequent Report of Abandonment	XX
Notice of Intention to Pull or Alter Casing		Supplementary Well History	
Notice of Intention to Abandon Well		Report of Fracturing	

(Indicate Above by Check Mark Nature of Report, Notice, or Other Data)

August 10, 1962

Following is a {notice of intention to do work / report of work done} on land {owned / leased} described as follows:

LEASE 1-37-Ind-12862

MONTANA (State) Roosevelt (County) East Poplar (Field)

Well No. 99 C SW NE Section 1 (m. sec.) 28N (Township) 51E (Range) (Meridian)

The well is located 1980 ft. from {N/S} line and 1986 ft. from {E/W} line of Sec. 1

(Locate accurately on Plat on back of this form the well location, and show lease boundary.)

RECEIVED

The elevation of the derrick floor above the sea level is 2184' K.B.

READ CAREFULLY — **DETAILS OF PLAN OF WORK** — READ CAREFULLY

(State names of and expected depths to objective sands; show size, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work, particularly all details results Shooting, Acidizing, Fracturing.)

DETAILS OF WORK
RESULT

Hole loaded w/10.2 to 10.4# mud. Set 25 sk. cmt. plug above A-1 zone perfs. (5578-5583) from approx. 550 to 5340 cut & pulled 4324' of 5 1/2" csg. Set 25 sk. cmt. plug at 4324' on top of 5 1/2" csg. stub. Plugged bottom of 9 5/8" surface csg. w/25 sk. plug. Set 10 sk. cmt. plug on top of 9 5/8" surface csg. & cemented in a 4" steel post marker in accordance w/the regulations of the Montana Oil and Gas Conservation Commission and the United States Geological Survey.

U. S. G. S. approved 8/29/62
Approved subject to conditions on reverse of form

Date Sept 10, 1962

By R M Watkins
Title
District Office Agent

Company Murphy Corporation

By M. H. James

Title Field Production Dept.

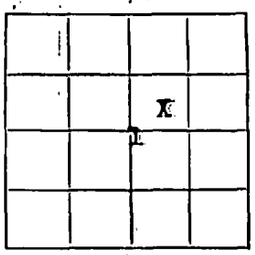
Address Poplar, Montana

NOTE:—Reports on this Form to be submitted to the District Agent for Approval in Quadruplicate.

WHEN USED AS PERMIT TO DRILL, THIS EXPIRES 90 DAYS FROM DATE OF APPROVAL

OVER

LOCATE WELL CORRECTLY



RECEIVED
OCT 18 1957
OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA

Form No. 4
(Gen. Rule 200.3 & 231)

(SUBMIT IN TRIPLICATE)
TO
OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA
BILLINGS OR SHELBY

LOG OF WELL

RECEIVED
OCT 15 1957
OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF MONTANA - BILLINGS

Company Murphy Corporation Lease 1-37-Ind-12862 No. 3597 Well No. 99

Address Poplar, Montana Field (or Area) East Poplar Unit

The well is located 1980 ft. from (N) (S) line and 1986 ft. from (E) (W) line of Sec. 1

Sec. 1 ; T. 28N ; R. 51E ; County Roosevelt ; Elevation 2184' K.B.
(D.F., R.B. or G.L.)

Commenced drilling July 23, 1957; Completed T. A. October 1, 1957

The information given herewith is a complete and correct record of the well. The summary on this page is for the condition of the well at the above date.

Completed as _____
(oil well, gas well, dry hole)

Signed W. H. Jones

Title Field Production Superintendent

Date October 11, 1957

IMPORTANT ZONES OF POROSITY

(denote oil by O, gas by G, water by W; state formation if known)

From _____ to _____ From _____ to _____
From _____ to _____ From _____ to _____
From _____ to _____ From _____ to _____
From _____ to _____ From _____ to _____

CASING RECORD

Size Casing	Weight Per Ft.	Grade	Thread	Casing Set	From	To	Sacks of Cement	Cut and Pulled from
9-5/8"	32.30	H-40	8rd.	1121.06'			400	
5-1/2"	15.50	J-55	8rd.	5910.00'			300	

TUBING RECORD

Size Tubing	Weight Per Ft.	Grade	Thread	Amount	Perforations
		NONE			

COMPLETION RECORD

Rotary tools were used from 0 to 5811'
Cable tools were used from _____ to _____
Total depth 5811 ft.; Plugged back to 5596' T.D.; Open hole from _____ to _____

PERFORATIONS			ACIDIZED, SHOT, SAND FRACED, CEMENTED			
Interval From	Interval To	Number and Size and Type	Interval From	Interval To	Amount of Material Used	Pressure
	SEE ATTACHED SHEETS			SEE ATTACHED SHEETS		

(If P&A show plugs above)

INITIAL PRODUCTION

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Well is producing from _____ (pool) formation.

I. P. _____ barrels of oil per _____ hours
(pumping or flowing)

_____ Mcf of gas per _____ hours.

_____ barrels of water per _____ hours, or _____ % W.C.

(OVER)

10M--1-56

INITIAL PRODUCTION—(Continued)

Initial 10-day average production _____ (bbl./day) (if taken)
Pressures (if measured): Tubing _____ psi flowing; _____ psi shut-in
Casing _____ psi flowing; _____ psi shut-in
Gravity _____ ° API (corrected to 60° F.)

DRILL STEM TESTS

D.S.T. No.	From	To	Tool Open (Min.)	Shut-In	F.P.	S.I.P.	Recovery	Cushion
					SEE ATTACHED SHEETS			

LOGS RUN

Type	Intervals	
	From	To
SEE ATTACHED SHEETS		

FORMATION RECORD

From	To	SAMPLE AND CORE NO. AND DESCRIPTION	Top of Formation
		SEE ATTACHED SHEETS	

Poplar

GEOLOGICAL PROSPECTUS

Division Billings Lease No. 3597

Operator Murphy Corporation Well Name East Poplar Unit Well No. 99

Location: Section SW NE 1 Township 28 North Range 51 East

Pool Name: East Poplar County Roosevelt State Montana

Type of Well: Oil X Gas ____ Exploratory ____ Development X

Objective Formation Madison Projected Depth 5950'

Well Elevation ~~2192~~ 2184' K.B. (est); 2180' Gr. (est).

5120
2928
2192

Expected Stratigraphic Section and Estimated Depths:

Judith River	880	(+1312)	Spearfish	4685	(-2493)
Eagle	1235	(+ 957)	Amsden	4805	(-2613)
Niobrara	2085	(+ 107)	Heath	4960	(-2768)
Greenhorn	2445	(- 253)	Otter	5120	(-2428)
Muddy	3000	(- 808)	Kibbey sand	5258	(-3066)
Dakota	3218	(-1026)	Kibbey limestone	5415	(-3223)
Morrison	3595	(-1403)	Madison	5518	(-3326)
Rierdon	4180	(-1988)	A zone	5595	(-3403)
Piper shale	4360	(-2168)	B zone	5762	(-3570)
Piper limestone	4435	(-2243)	C zone	5918	(-3726)

Anticipated Pay Horizons, Net Pay and Expected Depths:

2174
1312
862

A3	(6')	5610 (-3418)
B1	(8')	5762 (-3570)
B2	(15')	5780 (-3588)
B3		

2293
2174
119
4460

Recommended Coring and Formation Testing Program:

Core C1 and C2 - 40'
All other cores and tests at discretion of well site geologist.

Test B2, B3* and C2.
*Test B3 only if other wells in Section 1 indicate water level has not been located.

Recommended Sampling and Logging Program:

20' samples from 2000 to 4000'
10' samples from 4000 to T.D.

2" E.S. from bottom surface pipe to T.D.
5" E.S. from 2000' to T.D.
5" M.L. from 2000' to T.D.

Remarks: (Including pertinent data relative to location accessibility, unusual drilling problems due to surface or subsurface conditions, etc.)

Wade G. Moore
Acting Division Geologist

6-7-57
Date

WM/wf

Poplar

WELL DRILLING PLAN

Field or Area East Poplar Division Billings

County Roosevelt Total Anticipated Depth 5950'

Lease East Poplar Unit Well Name East Poplar Unit Well No. 99

Well Location SW NE Section 1-T28N-R51E, Roosevelt County

Lowest fresh water sand (for surface casing program): 90'

Casing and tubing program:

	From	To	Size	Weight	Grade	Bit Size
Conductor						
Surface	0	1000'	9-5/8"	36#	J-55	12-1/4"
Intermediate						
Production	0	5950'	5-1/2"	15.50#	J-55	8-3/4"
Tubing	0	5950'	2-7/8"	6.40#	J-55	E.U.E.

Potential Drilling Hazards Gas and water flow in the Judith River.

Mud Program Drill surface hole with fresh water and allow mud weight to build to approximately 10#. Use native mud and fresh water under surface to 4000'. Convert to gyp mud to drill through the pay sections.

Coring Method and Size Core Bits to be used 6-1/8" Diamond

Intervals Cores to be analyzed All porosity with show.

Method of Drill Stem Testing 2 hour tests.

Anticipated Completion Zone "B" Zone

Method of opening pay, perforation or open hole, and approximate interval: perforate

Expected Formation Treatments 1000 gallons of etching acid

Expected logs for Development, Evaluation, or Completion Purposes A Gamma Ray-Neutron will be run inside production casing from 3000' to T.D. in addition to the logs noted on the Geological Prospectus.

Remarks:

Date 6-10-57 Production Superintendent: Harold Nilsen

HM:eh

EPU #99 -

DETAILS OF WORK

Hole to be loaded with 10-10.2# mud. All perforations were squeezed except 5578'-83' (A Zone). These to be plugged with a 25 sack (122' fill up) plug. Top and bottom of 9 5/8" to be plugged.

This well was temporarily abandoned on October 1, 1957, after completion attempts proved unsuccessful.

Attempts were made to complete in the following intervals before being temporarily abandoned:

B Zone	5772-5776
B Zone	5751-5756
B Zone	5735-5740
A Zone	5626-5630
A Zone	5601-5617
A Zone	5578-5583

There are no other known producing intervals behind production casing.

This well to be capped and marked in accordance with regulations.

EAST POPLAR UNIT WELL NO. 99

COMPLETION DATA

Casing Program:

7-24-57 1130' - Ran 35 jts. (1109.56') of 9 5/8", 32.30#, H-40, R-2, ST&C, 8rd. thd., Class 1, American casing. Landed 11.50' below RKB and set at 1121.06'. Ran Howco float shoe at 1121'. 1 Howco centralizer at 1106'. Circulated and worked pipe 30 minutes. Cemented with 400 sacks of regular cement with 2% $CaCl_2$. Ran 10 barrels water ahead. Left approximately 20' of cement on top of plug. Circulated approximately 20 sacks of clean cement to surface. Bumped plug at 12:00 P.M. midnight with 1000#, released pressure, float held ok.

7-25-57 1130' - Tested casing with 1200# for 30 minutes, held ok.

8-11-57 5911' - Ran 143 jts. (5900') of 5 1/2", 15.50#, J-55, 8rd. thd., ST&C, R-3, Class 1, American casing. Landed 10' below RKB. Howco fillup shoe at 5910'. Howco baffle collar at 5864.26'. 5 B&W centralizers at 5577', 5658', 5720', 5790', and 5902'. Ran 54 B&W scratchers spaced as follows: 5' - 5908'-5720'; 15' - 5720'-5650'; 5' - 5650'-5580'; 15' - 5580'-5520'. Cemented with 300 sacks of 1.1 Pozmix with 22# salt per sack. Ran 20 barrels of water ahead of cement. Pumped plug down with water. Bumped plug with 1600#, released pressure, float held ok. Reciprocated pipe 40' while cementing. Plug down at 4:30 P.M., 8-11-57. Rig released at 8:30 P.M., 8-11-57.

8-12-57 5911' TD - Waiting on cement.

8-13-57 5911' TD - Waiting on pulling unit to complete.

8-14-57 5842' PBTD - Ran Lane Wells Gamma Ray-Neutron logs from TD to 2000' and from 1100' to 600'. Tested casing with 2000#, held ok. Perforated "B " Zone, 5772'-5776', with Lane Wells 4F-1 Karat-free gun, 4 holes per foot.

8-15-57 5842' PBTD - Ran tubing. Displaced water and mud with oil. Acidized "B " Zone (5772'-5776') with 500 gallons of Dowell etching acid. Formation broke at 1700# psi. Injected acid at rate of .7 BPM at 1400# psi. Bleed down pressure 1050# psi. Opened to pit at 4:27 P.M., 8-15-57. Spent acid to surface in 33 minutes. Flowed acid, water, mud and oil for 30 minutes, then cleaned up to salt water and oil. Flowed to test tank for 45 minutes, flowed at rate of 985 BFPD, 40% BS&W, (591 BOPD, 394 BWPD), $NACL_2$ 40,000 PPM.

8-16-57 5842' PBTD - No test.

8-17-57 5842' PBTD - On 16 hour test, 14/64" choke, flowed at rate of 260 BFPD, 65% water (91 BOPD, 169 BWPD). TFP--100#, CP--900#.

8-18-57 5842' PBTD - On 16/64" choke, 20 hour test, flowed at rate of 581 BFPD, 59% water (238 BOPD, 343 BWPD). TFP--75#, CP--700#.

Completion Data Continued:

8-19-57 5842' PBTD - On a 24 hour test, 14/64" choke, flowed at rate of 430 BFPD, 71% water (124 BOPD, 306 BWPD), TFP--175#, CP--800#.

8-20-57 5842' PBTD - On a 24 hour test, 12/64" choke, total fluid 396 barrels, water draw equals 90.4% water (38 BOPD, 358 BWPD). TFP--175#, CP--800#.

8-21-57 5842' PBTD - On a 16 hour test, flowed at rate of 374 BFPD, 94% water (20 BOPD, 354 BWPD). TFP--175#, CP--800#.

8-22-57 5842' PBTD - On a 24 hour water draw test, 397 BFPD, 94% water (25 BOPD, 372 BWPD), 12/64" choke, TFP--200#, CP--800#.

8-23-57 5842' PBTD - On a 24 hour test, 12/64" choke, flowed at rate of 337 BFPD, 95% water (320 BWPD, 17 BOPD) TFP--225#, CP--900#.

8-24-57 5842' PBTD - No test.

8-25-57 5842' PBTD - Preparing to squeeze and retest "B " Zone.

8-26-57 5842' PBTD - Circulated out with salt water. Did not kill well, flowing small stream. Made trip for Baker retrieveable packer. Set packer at 5753'. Pressure tested casing with 2000#. Tested lines with 4000#, broke formation at 1600#. Injected 4 BPM at 2200#. Mixed 75 sacks 1.1 Pozmix with 2% gel. Pumped in 60 sacks at 2800#, slowed pump down, pressure dropped to 2000#. Stopped pumping 30 seconds. Formation squeezed at 4000# with 65 sacks out. Reversed out 10 sacks. Started out of hole. Shut in well.

8-27-57 5842' PBTD - Made trip for bit and scraper. Drilled 23' of soft cement from 5754' to 5777'. Ran to PBTD. Circulated hole clean. Pressure tested squeeze with 2500# for 30 minutes, held ok.

8-28-57 5842' PBTD - Reperforated "B " Zone 5772'-5776' with Wireline, Inc.'s dynajet, 4 jet per foot, 17 holes. Made trip with junk basket. Set top of Baker Model "D" production packer on wireline at 5764'. Ran tubing. Acidized "B " Zone 5772'-5776' with 500 gallons Dowell etching acid. Injected 8 barrels, 3 BPM at 1900#. Last 4 barrels, 1/2 to 1 BPM at 2000#. Bleed down pressure 1300#. Opened to pit, flowed off head, died. Swabbed displacement water and spent acid. Swabbed 2 hours after spent acid was received. Fluid level 3200', swabbing approximately 7 BFPH, 98% water.

8-29-57 5842' PBTD - Shut in 12 hours. Fluid level 500' of top. Swabbed down to seating nipple at 3500'. Swabbed 9 hours. 3rd hour swab rate 19 BFPH, 98-99% water. 6th hour swab rate 12 BFPH, 98-99% water. Cholorides 62,000 PPM.

8-30-57 5764' PBTD - Squeezed "B " Zone perforation 5772'-5776' through Baker Model "D" production packer with 50 sacks of 1.1 Pozmix with 2% salt. Maximum pressure 4100#, held 3800# after one 2 minute and one 3 minute stage. 46 sacks in formation. Reversed out 4 sacks. Tested squeeze with 3000#, held ok. Perforated

Completion Data Continued

"B " Zone 5751'-5756' (5') with Wireline Service Inc.'s tubing gun. Ran through tubing, 4 shots per foot. Displaced water with oil. Acidized "B " Zone with 500 gallons of Dowell etching acid. Formation started feeding after soaking 15 minutes with 2500#. Injected 9 barrels 1/2 to 3/4 BPM, 2500# to 2800#. Injected last 3 barrels at 2800# to 3000#, 1.25 BPM, 4 minutes, bleed down 1800#. Opened to pit, flowed small stream 15 minutes, started swabbing, swabbed spent acid last run with swab 15% salt water. Chlorides 78,000 PPM. Shut down overnight.

8-31-57 5764' PBTD - Swabbed 9 hours, fluid level stabilized at 3300'. Last hours of swab test, swabbing of seating nipple at 3500'. Last hour, swab rate 11 BFPH, 99% water. Chlorides 78,000 PPM. Stung into packer at 5764', no cement under packer. Pressure tested, no communication indicated. Swabbed tubing dry to seating nipple at 3500'. Made dry run, let set 1 hour, recovered approximately 50' fluid. Let set another hour, recovered approximately 10' to 20' fluid, no indication of squeeze leaking.

9-1-57 5764' PBTD - Set Baker Model "K" CI cement retainer on tubing at 5746'. Squeezed "B " Zone perforation 5751'-5756' with 75 sacks Pozmix with 22% salt. Maximum squeeze pressure 5000#, held 60 sacks in formation, reversed out 15 sacks. Job complete at 4:00P.M., 9-1-57.

9-2-57 5746' PBTD - Pulled tubing, laid down 2212.49' of 2" tubing. Replaced with 2 1/2" tubing to swab "B " Zone to bottom. Perforated "B " Zone, 5735'-5740', 4 jets per foot with Lane Wells Kerat-free gun. Ran and set Baker Model "D" production packer at 5728'. Ran 2 1/2" tubing. Swabbed "B-1" Zone dry, no fluid movement. To let set overnight (12 hours).

9-3-57 5746' PBTD - Let set overnight (12 hours), no fluid fillup. Acidized "B " Zone perforation 5735'-5740' with 1000 gallons of Dowell etching acid. Acid started feeding at 3500# after soaking 10 minutes. Injected 15 barrels at 3 to 2 BPM - 3800#. Formation started breaking. Injected last 9 barrels at 3 BPM, 3800# back to 3500#. 10 minutes - bled 1500#. Flowed off head and died, swabbed displacement water and spent acid. Swabbed down to top of packer at 5728'. Swabbed 4 hours. Swab rate 1 to 2 BPH, 90 to 95% water. Chlorides 90,000 PPM. Show of gas ahead of each pull with swab.

9-4-57 5746' PBTD - Swabbed 7 hours, swab rate 1 to 2 BFPH, water cut decreased from 95% to 65% last hour. Re-acidized "B " Zone, 5735'-5740' with 3000 gallons Dowell etching acid. Over-flushed with 38 barrels lease crude. Filled tubing with 32 barrels acid, pumped 2 barrels in formation, dropped 15 nylon plugging balls. Displaced tubing volume 32 barrels at 5 BPM at 3500#. Pressure jumped to 4200# when ball hit perfoation. Injected 16 barrels with balls on perforations at 4 BPM at 3700#. Released pressure to drop balls off perforation. Injected last 22 barrels acid and over-flushed at 4.8 BPM - 3700#. 10 minutes bleed down 2550#; open to pit; flowed off head and died. Swabbed displacement oil and spent acid, shut down overnight.

Completion Data Continued

9-5-57 — 5746' PBTD - Swabbed down to top of packer at 5728' in 1 hour. Recovered 11 barrels fillup, 50% to 75% water. Swabbed 10 hours, fluid recovery stabilized 1 BPH, 65% water. Chlorides 98,000 PPM. Approximately 1000' gas ahead of each swab. Shut in to move pulling unit to #1-D to complete.

9-6 to 15-57 — 5746' PBTD - Waiting on pulling unit to complete.

9-16-57 — 5746' PBTD - Fluid level was 700' from top. Swabbed 98% water for 1 hour. Tested packer with 2000# psi, would not hold. Made trip with tubing, dressed Baker seal assembly and ran tubing. Testing sub. Tested packer with 2000# psi, would not hold. Dropped ball and tested tubing with 2000#, would not hold.

9-17-57 — 5709' PBTD - Replaced bad joint of tubing. Tested packer and casing with 2000 psi, held ok. Broke formation with 2800#. Squeezed "B " Zone perforation (5735'-5740') with 75 sacks of 1:1 Pozmix cement, 22% salt. Squeezed 60 sacks cement out in formation. Maximum squeeze pressure 5000 psi, held. Reversed out 13 sacks cement and left 2 sacks on top of Model "D" production packer. Perforated "A " Zone (5626'-5630') with Wireline, Inc. dyne jet gun, 4 holes per foot. Set Model "D" production packer on wireline, top of packer at 5621'.

9-18-57 — 5709' PBTD - Crews were off, snowing and raining.

9-19-57 — 5709' PBTD - Spaced out tubing in production packer at 5621'. Swabbed dry. Acidized "A " Zone through perforation 5626'-5630' with 500 gallons of Dowell etching acid. Pressured up to 2500#, acid feeding. Increased pressure to 2900#, formation broke. Injected total of 315 gallons in formation. Final injection rate - 1-1/2 BPM at 1200 psi. Opened to pit, well flowed small stream. Swabbed out load water and spent acid, shut in overnight.

9-20-57 — 5709' PBTD - After shut in overnight, tubing pressure 250#. Swabbed 1 hour to remove average load water. Shut well in while hooking up for flow test. On 6 hour test, 12/64" choke, well flowed at rate of 119 BFPD, 97% water (4 BOPD, 115 BWPD), TFP--100#.

9-21-57 — 5709' PBTD - On 4 hour test, flowed at rate of 90 BFPD, 98% water (2 BOPD, 88 BWPD), TFP--75#.

9-22-57 — 5709' PBTD - On 24 hour test, 12/64" choke, flowed at rate of 61 BFPD, 98% water (1 BOPD, 60 BWPD), TFP--75#.

9-23-57 — 5619' PBTD - Rigged up pulling machine, changed well head and installed blow out preventors. Tested casing, head, and packer with 2000#, held ok. Squeezed "A " Zone perforation (5626'-5630') with 75 sacks Pozmix, 2% gel, salt saturated. Broke formation with 1800# psi. Squeezed 63 sacks cement out in formation. Maximum squeeze pressure 5000# psi. Left 1/2 sack cement on top of Baker packer. Reversed out 11-1/2 sacks cement. Job complete at 3:50 P.M., 9-23-57.

Completion Data Continued

9-24-57 5617' PBTD - Attempted to shoot "A" Zone with Wireline Inc. Dynajet casing gun. Unable to reach bottom. Perforating "A " Zone from 5601'-5617' with Wireline Inc. through tubing gun, 4 holes per foot. Made trip with Baker junk basket. Set Baker Model "D" production packer on Wireline. Top of packer at 5596'. Ran tubing with 2 Baker seal units and 9' of tail pipe. Swabbed 30 barrels fluid and tubing was dry. Let set overnight.

9-25-57 5617' PBTD - Let set overnight, no fluid fillup. Acidized "A " Zone perforation from 5601' - 5617' with 500 gallons of Dowell etching acid. Formation started feeding at 3250# after soaking 1 hour. Injected .1 BPM at 3250# to 3275#, increased pump rate. Formation broke at 3600#, after 7 barrels of acid in formation, broke back to 2800#. Injected last 5 barrels of acid at 1.5 BPM, 2900#. Bleed down pressure 1200#. Opened to pit, flowed small stream, did not die. Swabbed displacement water and spent acid. Swabbed 4 hours, last 3 hours formation fluid swabbed at rate of 25 BFPH, 95 to 98% water.

9-26-57 5596' PBTD - On 8 hour swab test - average 21 BFPH, 98% water, 2% oil. Squeezed "A " perforation (5601'-5617') with 75 sacks 1.1 Pozmix with 2% gel and 22# salt. Formation broke and pumped in at 2700#. Squeezed to 4500#, held. Reversed approximately 7 sacks cement. Came out of hole and changed rams.

9-27-57 5596' PBTD - Tested squeeze to 2000#, held ok. Perforated "A " Zone (5578'-5583') with Wireline Service Inc.'s dynajet casing gun with 4 shots per foot. Ran Wireline junk basket and gauge ring. Set Baker Model "D" production packer at 5568'. Ran and spaced out tubing. Swabbed tubing dry. Shut in overnight.

9-28-57 5596' PBTD - No fillup overnight. Acidized "A " Zone (5578'-5583') with 500 gallons of Dowell etching acid. After pumping 3.5 barrels acid into formation at 3000#, the annulus pressured to 2400# from leak. Pumped 1.5 barrels pressure increased--bleed 1 barrel. Pumped remaining acid into formation, maximum pressure 3700#. No bleed down in 2 minutes. Bled pressure off and swabbed tubing and casing dry. Shut in until Monday.

9-29-57 5596' PBTD - Let set from 5:00 P.M., 9-28-57 to 7:00 A.M., 9-30-57 (38 hours). Fluid fillup 3700'. To repair leak and swab test for water cut.

9-30-57 5596' PBTD - Pulled tubing and found collar on top of swage from 2-1/2" tubing to 2" loc. sub, cut out. Replaced collar and 1 jt. of 2-1/2" tubing, went in hole and swabbed tubing dry. No fluid movement. Laid down tubing, shut in well. Equipment left on well: one 10" x 6" 600 series tubing head, two 2" 2000# WP McEvoy Xmas tree gate valves, one 2" x 6" tubing hanger spool, and two 2" bull plugs. Temporarily abandoned 10-1-57. To drop from report.

EAST POPLAR UNIT WELL NO. 99

SURFACE EQUIPMENT RECORD

1. Well Head Equipment: 1 - Cameron 10" series 600 x 9-5/8", 8rd. thd., type W.F. casing head with 2 - 2" outlets, 1 - 2" Cameron L.P. valve 2000# W.P.

   1 - 10" x 5-1/2" Cameron type C.A. automatic casing hanger complete.

   2 - 2", 2000#, W.P. McEvoy Xmas tree gate valves.

2. Flowline: 4590' of 3", 6.63#, R-3, P.E. Line Pipe.

EAST POPLAR UNIT WELL NO. 99

SUB-SURFACE EQUIPMENT RECORD

1. 9-5/8" Casing at 1121.06'
   5-1/2" Casing at 5910'

2. Baker Model "D" production packer at 5764'
   Baker Model "K" CI cement retainer at 5746'
   Baker Model "K" CI cement retainer at 5728'
   Baker Model "K" CI cement retainer at 5596'
   Baker Model "K" CI cement retainer at 5568'

EAST POPLAR UNIT WELL NO. 99

WELL LOG DATA

TYPE OF LOG	INTERVAL LOGGED
Schlumberger Electrical Survey 2"	1112' - 5903'
Schlumberger Electrical Survey 5"	2000' - 5903'
Schlumberger Microlog 2"	2000' - 5903'
Lane Wells Gamma Ray Neutron 5"	600' - 5843'

SCHLUMBERGER TOPS

	Depth	Datum	Thickness
Niobrara	2064	+ 120	
Greenhorn	2440	- 256	
Muddy Sand	2996	- 812	
Skull Creek	3049	- 865	
Dakota Silt	3220	-1036	
Swift	3655	-1471	
Vanguard	3980	-1796	
Rierdon	4165	-1981	
Piper Shale	4338	-2154	
Piper Lime	4417	-2233	
Gypsum Springs	4477	-2293	
Spearfish	4672	-2488	
Amsden	4802	-2618	
Heath	4941	-2757	
Otter	5100	-2916	
Kibbey Sand	5238	-3054	
Kibbey Lime	5394	-3210	
Madison	5494	-3310	
A-1	5580	-3396	3'
A-2	5596	-3412	3'
A-3	5608	-3424	?
A-4	5626	-3442	22'
B-1	5735	-3551	7'
B-2	5752	-3568	12'
B-3	5773	-3589	6'
B-4	5806	-3622	4'
B-5	5812	-3628	?
C-1	5877	-3693	?
C-3	5899	-3715	8'

EAST POPLAR UNIT WELL NO. 99

DRILL STEM TESTS RECORD

DST #1 5745'-5758', "B " Zone. Ran DST #1 with Halliburton, single packer test, 5/8" bottom choke, no water cushion. Tool open 2 hours, shut in 30 minutes. Tool opened with a weak blow, increased to medium blow, remained same throughout test. Recovered 180' clean oil, and 256' salty sulphur water, no gas. IBHFP-42#, FBHFP-455#, BHSIP-2235#, Hydro-3365#.

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EAST POPLAR UNIT WELL NO. 99

MUD PROGRAM SUMMARY

MUD SERVICE CO.: Baroid

MUD ADDITIVES AND COST:

Materials	Surface Hole Amt.	Surface Hole Cost	Surface - T.D. Amt.	Surface - T.D. Cost	Total Amt.	Total Cost
Mayocbar	286	$881.57	16	$ 48.97	302	$930.54
Salt Gel	33	93.89	23	65.44	56	159.33
Hulls	11	55.00	29	145.00	40	200.00
Fibre			7	28.00	7	28.00
Lime	3	5.40			3	5.40
Gypsum			10	22.00	10	22.00
Aquagel			80	400.00	80	400.00
Preservative			9	450.00	9	450.00
Q. Broxin			34	340.00	34	340.00
Caustic Soda			22	308.00	22	308.00
Mud Cost		$1035.86		$1807.41		$2843.27
Trucking		113.70		77.04		190.74
Taxes		3.41		2.23		5.64
Salt Water		95.00				95.00
Crude Oil				398.00		398.00
Grand Total		$1247.97		$2284.68		$3532.65

UNIT MUD COSTS:

	Total Cost	Feet Drld.	Cost per Foot	Days Used	Cost per Day
Spud - T.D.	$3532.65	5903	.60	20	176.63
Spud - Surface	1247.97	1030	1.21	3	415.99
Surface - T.D.	2284.68	4873	.47	17	134.39

MUD PROPERTIES:

Depth	Weight	Viscosity	Water Loss	Salt Content PPM	Remarks
1130	12.0	52			Surface Hole
4552	10.0	38	24.		Conversion
4755	10.2	30	22.4		Drilling
4926	10.0	38	14.		Start Oil
5050	10.1	40	17.6	14,350	Drilling
5337	10.2	35	20.6	8,400	Drilling
5569	10.2	37	16.4		Drilling
5739	10.3	47	12.6		Lower water loss
5781	10.2	46	8.		Drilling pay zones
5860	10.1	48	9.8		Coring
5903	10.3	44	11.8	39,600	Cond. mud for logs

Mud Program Summary Continued

SUMMARY:

A 12-1/4" hole was drilled to 1130 feet and 9-5/8" surface casing was cemented at 1121 feet. Salt water was used to drill to approximately 800 feet and at this depth, barites were added to raise the mud weight to 12 lb. per gallon to control the Judith River Sand. Cottonseed hulls were added to overcome a slow loss of mud.

Fresh water was used to drill the 8-3/4" hole to 4650 feet, where conversion to a gyp base mud was made with additions of gypsum, starch, preservative, salt gel, Q-Broxin and caustic soda. The Q-Broxin and caustic soda were added to disperse the mud and oil in controlling the viscosity, gel strength, and water loss. Gypsum and gel formed the mud base and starch was used as the primary water-loss control agent. Crude oil was added at approximately 4900 feet to aid in controlling the weight and water loss.

Although the mud system was poorly handled by the drilling crews and properties fluctuated considerably, good hole conditions were maintained. One Drill Stem Test was run and one core was cut. (Returns were lost while cutting the core, but the addition of cotton seed hulls regained full returns.) Logs were run and production casing was cemented without difficulty.

Q-Broxin is a relatively new thinner, developed for use primarily in gyp-base muds. In spite of the loss of approximately 100 barrels of mud while coring and relatively poor handling by the crews, the mud costs below surface hole were less than the average cost for other wells in the immediate area. Although many other factors affect the mud costs and effectiveness of the mud system, it appears that Q-Broxin treated gyp-base muds may result in lower mud costs and greater control of mud properties. Another Q-Broxin treated gyp-base mud will be tried in the near future.

EAST POPIAR UNIT WELL NO. 99

DRILLING BIT RECORDS

Bit No.	Make	Size	Type	Ser. No.	From	To	Hours
1	C.P.	8 3/4"	ES1-C	84700	1130	3260	1
2	C.P.	"	ES2-C	131531	3260	3586	15
3	C.P.	"	ES1-J	79773	3586	3775	10
4	C.P.	"	ES2-J	79773	3775	4065	11
5	C.P.	"	ES2-C	86791	4065	4496	30 1/4
6	C.P.	"	ES2-G	86794	4496	4676	17 3/4
7	C.P.	"	ES2-G	131532	4676	4842	13
8	C.P.	"	ES2	115867	4822	5002	19
9	Hughes	"	EM1-V	120560	5002	5026	3
10	Hughes	"	OWV	4761	5026	5045	5 1/2
11	C.P.	"	ESV	124190	5046	5082	5
12	C.P.	"	ES2	124459	5082	5210	15
13	Hughes	"	OSC1-G	57536	5210	5297	11
14	Hughes	"	OWV	52039	5297	5373	8 3/4
15	C.P.	"	ES2	124461	5373	5405	5
16	C.P.	"	ES3	116814	5405	5455	9 1/4
17	C.P.	"	EM1-V	120408	5455	5536	13
18	Hughes	"	OWV	9742	5536	5686	18
19	Hughes	"	OSC	9007	5686	5758	7 1/2
20	C.P.	"	ES3	116789	5758	5785	9 1/2
21	Hughes	"	OWV	51031	5785	5880	17 1/2

TOTCO RECORDS

Totco Footage	Degrees
924'	1
1130	3/4
1957	1/4
2520	1
3260	1/2
4065	2
4496	1
5025	1 1/2

EAST POPLAR UNIT WELL NO. 99

DIAMOND CORE BIT RECORD

Core No.	From	To	Footage	Hours	Size	Make	No.	Type	Serial No.
1	5880	5903	23	3 3/4	8 7/8	Christensen	C-18-3		F-4626

EAST POPLAR UNIT WELL NO. 99

FUTURE PRODUCTION ZONES

NONE

EAST POPLAR UNIT WELL NO. 99

SAMPLE DESCRIPTIONS

2000-2080	Shale: gray, soft, traces of white sandstone.
2080-2200	Shale: as above with soft, white to buff limestone specks.
2200-2420	Shale: dark gray with some unconsolidated, medium grained, sand grains, traces of mica.
2430	Sample Top Greenhorn
2420-2600	Shale: dark gray with some tan to buff limestone, also buff calcareous specks.
2600-2640	Shale: dark gray, some fine grained sandstone.
2640-2700	Shale: as above, traces of brown, sandy shale.
2700-2800	Shale: dark gray with traces of white gypsum.
2800-2990	Shale: dark gray to black with traces of white, limey siltstone.
2990	Sample Top Muddy Sandstone
2990-3040	Sandstone: gray and black (salt and pepper) medium grained, loosely consolidated, widely scattered fluorescence, no cut, shale as above.
3040-3220	Shale: dark gray, splintery.
3220	Sample Top Dakota Siltstone
3220-3320	Siltstone: gray, limey, fairly hard with black shale and some fine grained, white sandstone.
3320-3440	Sandstone: medium grained, gray, good permeability and porosity hard, with above black shale.
3440-3500	Shale: black, splintery with stringers of above sandstone.
3500-3580	Sandstone: medium grained, gray, good permeability and porosity no show.
3580-3650	Shale: black, splintery with some brown sandy shale.
3655	Sample Top Swift
3660-3720	Sandstone: light gray, glauconitic, medium grained.
3720-3780	Shale: dark gray to black, traces of above sandstone.
3780-3930	Shale: black, traces of gray, limey siltstone and some light gray sandstone.

Sample Descriptions Continued

3980	Sample Top Vanguard
3980-4020	Sandstone: fine grained, gray, hard, well consolidated, fair permeability and porosity, no show.
4020-4160	Shale: gray to black, splintery with traces of above sandstone.
4165	Sample Top Rierdon
4160-4220	Sandstone: fine grained, gray, hard, tight, no show.
4220-4340	Shale: black, splintery, with traces of buff to yellow limestone.
4340	Sample Top Piper Shale
4340-4420	Shale: dark gray, silty, with traces of red, sandy shale.
4420	Sample Top Piper Limestone
4420-4450	Limestone: dark gray, earthy with above shale.
4450-4490	Shale: dark gray, with some red and brown shale, traces of white anhydrite, also some medium grained unconsolidated sandstone.
4490-4560	Shale: dark gray sandstone with traces of light gray, medium grained, well consolidated.
4560-4590	Limestone: multi-colored limes, grays, brown, purples for most part, hard, dense browns have trace of porosity, also multi-colored limey shales, no show.
4590-4670	Shale: gray, brown with traces of above multi-colored limes.
4670	Sample Top Spearfish
4670-4690	Sandstone: fine grained, hard, fair permeability and porosity no show, with above shales.
4690-4800	Shale: dark reds, silty with some gray shale and above sandstone.
4800	Sample Top Amsden
4800-4830	Dolomite: pink and gray, dolomite and lime with light gray shale.
4830-4940	Shale: light to dark gray with light buff limestone stringers.
4940	Sample Top Heath
4940-4960	Shale: multi-colored with some purple, traces of anhydrite.

Sample Descriptions Continued

4960-4980	Sandstone: red and purple, hard, medium grained sandstone, with some white, hard, fine grained sandstone.
4980-5020	Shale: dark gray to black, trace of above sandstone.
5020-5050	Sandstone: purple, very hard, fair permeability and porosity, angular, weak, greenish-yellow fluorescence, poor to no cut.
5050-5100	Shale: black, marine with traces of purple coarse grained, hard sandstone.
5100	Sample Top Otter
5100-5130	Shale: multi-colored, traces of green shale, some buff, dense limestone.
5130-5160	Limestone: dark gray, buff, dense, traces of permeability and porosity with no fluorescence or cut.
5160-5240	Shale: multi-colored shale with traces of above limestone.
5240	Sample Top Kibbey Sandstone
5240-5280	Sandstone: medium grained, white and pink, hard, tight, poor to no permeability and porosity, top 10' traces of buff siltstone.
5280	Kibbey Porosity
5280-5290	Sandstone: red and purple, medium grained, fair permeability and porosity, spotted, scattered fluorescence, poor cut.
5290-5300	Sandstone: red, hard, fine grained, no permeability and porosity, no show.
5300-5330	Sandstone: medium grained, red with rounded , fair permeability and porosity, no show, also multi-colored shales.
5330-5340	Shale: red and dark gray, traces of above sandstone.
5340-5370	Sandstone: medium grained, well sorted and rounded, good permeability and porosity, no show.
5370-5400	Shale: red, silty, with stringers of above sandstone.
5395	Sample Top Kibbey Limestone
5400-5430	Limestone: light gray to gray-brown, traces of pink, dense limestone, poor permeability and porosity, no show in the gray brown limestone, widely scattered fluorescence, no cut.
5430-5450	Sandstone: red, hard, fine grained, fair permeability and porosity, no show, traces of oolitic limestone, some red shale.
5450-5500	Shale: dark red and black with stringers of above limestone and sandstone.

Sample Descriptions Continued

5503	Sample Top Madison
5500-5520	Anhydrite: both soft, white and dark gray with above shales.
5520-3540	Limestone: dark gray, dense, with traces of above anhydrite.
5540-5580	Anhydrite: dark gray, dense.
5580	Sample Top "A-1" Zone
5580-5590	Limestone: dark gray, traces of fine crystalline, limestone, fair permeability and porosity, spotted to even fluorescence, fair cut, also some dense, hard, black limestone.
5590-5620	Limestone: dark gray to black, hard, dense with traces of above inter-crystalline limestone.
5620-5640	Limestone: dark gray-brown, finely crystalline, traces of oolites with spotted fluorescence, poor cut, good permeability and porosity.
5640-5690	Anhydrite: dark gray, hard and dense, traces of above limestone.
5690-5710	Limestone: dark gray, dense with thin stringers of salt, no clean salt section.
5710-5730	Anhydrite: dark gray, dense.
5732	Sample Top "B-1" Zone
5730-5740	Limestone: dark gray-brown, finely crystalline, with fair permeability and porosity, spotted to even fluorescence, fair cut, traces of above anhydrite.
5740-5750	Anhydrite: hard, dense.
5748	Sample Top "B-2" Zone
5750-5770	Limestone: dark gray-brown, fair permeability and porosity, with spotted to even fluorescence, fair cut, traces of dense limestone last 10'.
5772	Sample Top "B-3" Zone
5770-5780	Dolomite: dark gray, fair permeability and porosity, widely scattered fluorescence, poor to no cut.
5780-5800	Anhydrite: dark gray, dense.
5800-5820	Limestone: dark gray, finely crystalline, with dark gray, earthy dolomite.
5820-5860	Limestone: dark gray, dense, no permeability and porosity, no show.
5880-5903	Core No. 1 (C-2 Zone)

EAST POPLAR UNIT WELL NO. 99

CORE DESCRIPTION

Core No. 1 C-2 5880'-5903'; Cut 23', Recovered 20 1/2'
T.T. 33, 27, 38, 22, 25, 28, 42, 38, 32, 32, 36, 42, 45, 38, 26, 44, 45, 38, 27, 15, 18, 15, 40, Lost circ.

C-2 Zone	10 1/2'	Limestone: dark gray, dense, highly fractured throughout unit, widely scattered fluorescence on fracture planes, no matrix show.
	9 1/2'	Limestone: dark gray-brown, finely crystalline, earthy, fair permeability and porosity, bottom 3 1/2' fractured, entire unit bleeding oil, gas and mud; excellent oil odor and taste on fresh break.
	1/2'	Limestone: dark gray, dense, no show.

EAST POPLAR UNIT WELL NO. 99

CORE ANALYSIS REPORTS

Sample No.	Representative Midpoint of Feet of Sample Footage	Permeability Radial	Permeability Vertical	Effective Porosity Percent	Density Bulk	Density Matrix	Saturation % of Pore Space Resid. Oil	Saturation % of Pore Space Water
	Core No. 1 5880-5903' "C-3" Zone :							
1	5890.5-91	0.01	-0.01	1.3	2.48	2.51	57.4	38.5
2	5891-92	0.13	-0.01	3.3	2.45	2.54	59.4	36.4
3	5892-93	0.09	-0.01	7.0	2.41	2.59	58.3	37.7
4	5893-94	0.48	-0.01	4.5	2.44	2.55	57.9	38.1
5	5894-95	0.25	-0.01	5.7	2.42	2.58	44.9	55.0
6	5895-96	0.08	-0.01	4.2	2.45	2.55	53.1	42.8
7	5896-97	0.26	U.T.	10.9	2.28	2.56	30.2	20.6
8	5897-98	0.37	U.T.	11.1	2.29	2.58	36.5	27.6
9	5898-99	2.05	U.T.	6.6	2.43	2.60	40.1	37.5
10	5899-5900	0.36	U.T.	5.4	2.47	2.61	65.5	30.8

LEGEND:
U.T. = Unfit for Test

Location: C SW NE Section 1, T28N, R51E
Spacing: 160
Elevation: 2172' Gr. - 2184' K.B.
Spudded: July 23, 1957
Completed: Temporarily abandoned
October 1, 1957
T.D.: 5803' Dr. = 5811' Sch.
Prod. Zones: None

Schlumberger Tops

	Depth	Datum	Thickness
Greenhorn	2440	-256	
Muddy Sd	*2996	-812	
Dakota Silt	3220	-1036	
Piper Ls	4417	-2233	
Amsden	4802	-2618	
Heath	*4941	-2757	
Otter	5100	-2916	
Kibbey Sand	*5238	-3054	
Kibbey Ls	*5394	-3210	
Madison	5494	-3310	
A-1	*5580	-3396	3'
A-2	*5596	-3412	3'
A-3	*5608	-3424	?
A-4	*5626	-3442	22'
B-1	*5735	-3551	7'
B-2	*5752	-3568	12'
B-3	*5773	-3589	6'
B-4	*5806	-3622	4'
B-5	5842	-3658	?
C-1	*5877	-3693	?
C-2	*5899	-3715	8'

*Shows

Drill Pipe Corrections (Made)
3260' Driller = 3270' SIM (+ 10')
4496' Driller = 4496' SIM (+ 0')

Coring Intervals
Core #1 5880'-5903' Rec. 20-1/2' "C-2" and "C-3"

Drill Stem Tests
DST #1 5745'-5758', "B-2". Ran DST #1 w/ Halliburton, single pkr. test, 5/8" bottom choke, MC. Tool open 2 hrs., shut in 30 mins. Tool opened w/ a weak blow, increased to medium blow, remained same throughout test. Rec. 180' clean oil and 256' salty sulphur wtr., no gas. IBHFP--42#, FBHFP--455#, BHSIP--2235#, Hydro--3365#.

YAPUNCICH, SANDERSON & BROWN LABORATORIES

P. O. BOX 593 — BILLINGS, MONTANA — 13 N. 32ND ST.

WATER ANALYSIS REPORT

Lab. No. 1513-W

Field EAST POPLAR — County ROOSEVELT — State MONTANA
Well No. 99 UNIT — Location SW NE 1-28N-51E
Formation B-2 ZONE — Depths 3745-5748'
Operator MURPHY CORPORATION — Date Sampled 8-8-57
DST No. 1 — Sample — Date Analyzed 8-14-57
Other Data TOOL OPEN 2 HRS. SI 30 MIN. RECOVERED 180' CLEAN OIL and 256' SALTY SULFUR WATER, NO GAS. FP 42-455 LBS., SIP 2235 LBS., HP 3365 LBS. SAMPLE CLEAR COLORLESS WATER WITH MUD ON BOTTOM.

Constituents	PPM	MEQ.	MEQ. %
Sodium	54,420	2367.11	48.54
Calcium	1098	54.79	1.12
Magnesium	197	16.19	0.34
Sulfate	2810	58.45	1.20
Chloride	84,240	2375.57	48.72
Carbonate	0	0	0
Bicarbonate	248	4.07	0.08

Total Solids in Parts per Million

By evaporation 144,200
After ignition 143,840
Calculated 143,067

pH 6.7

Specific Gravity @ 60°F 1.098

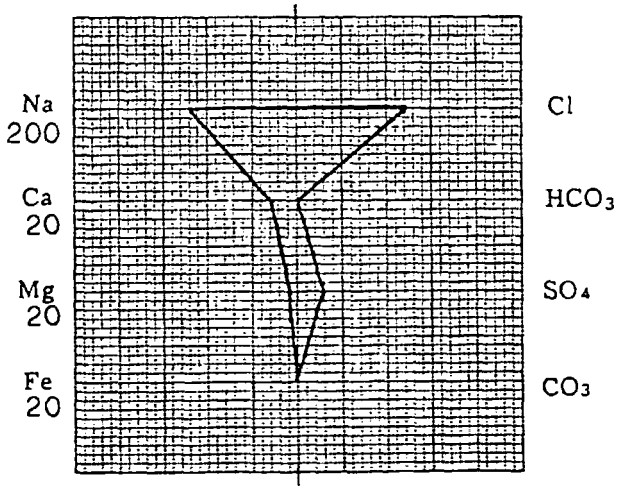
Resistivity @ 68°F ohms/meter² 0.068

Chloride as NaCl 138,912 PPM. Total Solids From Resistivity as NaCl 141,569 PPM.

NOTE: Sodium and potassium reported as sodium. MEQ.=milliequivalents per liter. PPM=parts per million (milligrams per liter). 1 PPM equivalent to 0.0001%

WATER ANALYSIS PATTERN

Scale MEQ. Per Unit



YAPUNCICH, SANDERSON & BROWN LABORATORIES

P. O. BOX 593 BILLINGS, MONTANA 13 N. 32ND ST.

WATER ANALYSIS REPORT

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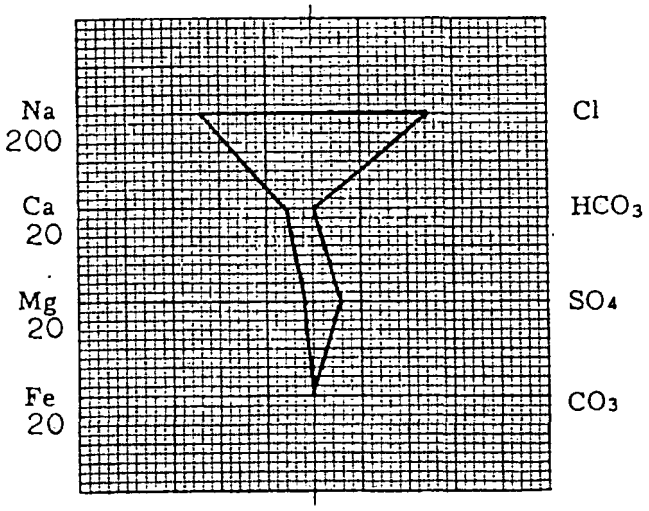

SURFACE EQUIP.

PRODUCTION &
INJECTION DATA

RECORD OF PLUGGING AND ABANDONMENT

July 31, 1962

Lease and Well No. East Poplar Unit #99

Field East Poplar County Roosevelt State Montana

Well Location SW NE Section 1, T28N, R51E

Status Prior to Abandonment:

Date completed October 1, 1957 Date of Last Workover None

TD 5911 PBTD 5596 Perforations 5578-5583 A-1 Zone

Producing Zone None, Temporarily abandoned, Oct. 1, 1957

Cumulative Production None

Justification for Abandonment:

This well was temporarily abandoned on October 1, 1957 after completion attempts proved unsuccessful. Attempted completions were tried in the following zones: B-3 5772-5776 sqz, B-2 5751-5756 sqz, B-1 5735-5740 sqz, A-4 5626-5630 sqz, A-3 5601-5617 sqz. A-1 5578-5583. (Engineering Workover Committee recommended that this well be plugged and casing pulled.)

Summary of Abandonment:

Hole loaded w/10.2 to 10.4# mud. Set 25 sk. cmt. plug above A-1 zone perfs (5578-5583) from approx 5550 to 5340 cut & pulled 4324' of 5 1/2" csg. Set 25 sk. cmt. plug at 4324' on top of 5 1/2" csg. stub. Plugged bottom of 9 5/8" surface csg. w/25 sk. plug. Set 10 sk. cmt. plug on top of 9 5/8" surface csg. & cemented in a 4" Steel post marker in accordance w/the regulations of the Montana Oil and Gas Conservation Commission and the United States Geological Survey.

Disposition of Salvable Material:

2215' of 5 1/2" 15.50# cond. 2 csg to EPU STOCK.
2109' of 5 1/2" 15.50# cond. 4 cst to EPU STOCK.
9 5/8" Cameron csg. head, 5 1/2" casing hanger, 10" Cameron tbg. head, 6" x 2" adapter flange, 2" McEvay gate valve, 2" WKM gate valve, 2" Cameron LP valve trans. to EPU STOCK.
4620' 3" steel flaeline - junked.
100' 3" Plastic cellar drain - junked.